

Date: Monday, 1/30/2006 3:43:52 PM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services		Drawing Name	: X-TUBE EXTRUSION		
Job Number	: 25667		Part Number	: D6008180		
Estimate Number	: 11108		Drawing Number	: D6008 REV A		
P.O. Number	: N/A		Project Number	: N/A		
This Issue	: 1/30/2006	S.O. No.	: N/A	Drawing Revision	: A	
Prsh Rev.	: NC		Material	: N/A		
First Issue	: N/A	Type	: LANDING GEAR	Due Date	: 6/1/2006	
Previous Run	: N/A		Qty:	12	Um:	Each
Written By						
Checked & Approved By						
Comment	: Est Rev:G 04.06.15 Added tolerance to Step 2 KJ/JLM					

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	PG	PURCHASING
	Comment: PURCHASING	<p>Issue P/O: <u>00000505</u> <i>for solo load</i></p> <ul style="list-style-type: none"> a) Order as per Dwg D6008 b) Material: 3.250 x 0.438 wall 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9 or QQ-A-200/11) seamless aluminum tube c) Minimum ultimate tensile strength = 77 ksi d) Minimum tensile yield strength = 66 ksi e) Tolerance are per ASTM B210 (see details on Dwg D6008) f) Material certification required
2.0	D6008180	Crosstube extrusion
	Comment: Qty.: 1.0000 Each(s)/Unit Total : 12.0000 Each(s) Crosstube extrusion	<i>CF</i>
3.0	PACKAGING 1	PACKAGING RESOURCE #1
	Comment: PACKAGING RESOURCE #1 Receive & Inspect For Transit Damage Ensure material certification is attached	<i>C Level 28106 (13)</i>
4.0	QC6	DIMENSIONAL CHECK
	Comment: DIMENSIONAL CHECK Ensure Material certification comply to Dwg D6005	<i>16.05.28 (13)</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA:  Date: 07/01/30
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Drawing Name: X-TUBE EXTRUSION

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Job Number:



Seq. #: Machine Or Operation:

Description :

5.0 HAND FINISHING1

HAND FINISHING RESOURCE #1



DP/JB



07.01.29(12)

Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

6.0 QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



DP 7-1-29 12

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

7.0 PACKAGING 1

PACKAGING RESOURCE #1



DP/JB 7/29 12

Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: LG

8.0 DC

DOCUMENT CONTROL



(12)

Comment: DOCUMENT CONTROL

Inspection Level 21

DP/07/01/30

Job Completion



U 07/01/30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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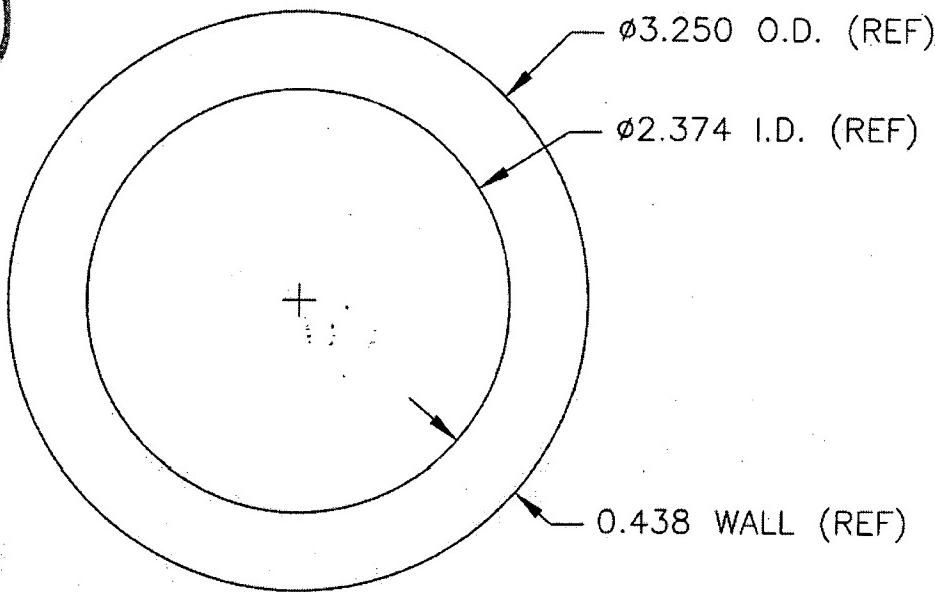
NOTE: Date & initial all entries

DART

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D6008
DATE		REV. A SHEET 1 OF 1
00.11.17		TITLE CROSSTUBE MATERIAL
A	00.11.17	SCALE 1:1 NEW ISSUE

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24 #



NOTES

- 1) D6008-XXX CROSSTUBE

LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 180" LONG TUBE: D6008-180

- 2) MATERIAL: 3.250 OD x 0.438 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi.
MINIMUM YIELD TENSILE STRENGTH = 66 ksi.
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.008 MEAN (± 0.016 INCLUDING OVALITY)
WALL: ± 0.020 MEAN (± 0.044 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.125/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

SHOP COPY
FEB 23/9 OR
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 25667

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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ALUnna

Abnahmeprüfzeugnis 3.1 - EN 10204:2004

Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1- EN 10204:2004

Kunde: Dart Aerospace Ltd.

Client:

1270 Aberdeen Street
K6A1K7 Hawkesbury, ON Canada

Zeugnisnummer: 416/06

Cert No.: / No. du certificat:

PO00000505

Produkt: Rohre nahtlos gepresst

Product / Produit: Tubes seamless extruded

Bestellnummer:

Order No. / No. de commande:

17486/8

Spezifikation:

Specification:

Auftrag:
Our Reference/Notre Reference:

-; AMS - QQ - A - 200/11E; -; -; Spezifikation Dart Aerospace D6008

Werkstoff:

Alloy/Alliage:

Abmessung

Size / Dimension

Kennzeichnung

Marking/Marquage:

7075

3,250 INCH x 2,374 INCH x 0,438 INCH x 180,000 INCH

D6008-180 3.250 x 0.438 x 180

Zustand:

Temper/État

T 6511

Lieferung

Delivered Material / Matériel délivré:

pcs.

lbs

13

919

ALUnna-Cert No.416/06-7075-T6511-Cast No.AMS-QQA-200/11E-3.250" OD X 0.438" Wall-Heat No.447/05-Lot17486/8-1-P.O. 00000505

1. Chemische Analyse

Chemical Analysis / analyse chimique

Charge/ Cast No.	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Zr	Bi	Sn	Ni
min.													
max.	0,40	0,50	1,2	0,30	2,1	0,18	5,1						
79923	0,151	0,193	1,42	0,055	2,47	0,188	5,73	0,035	0,006	0,018	0,001	0,001	0,006
01503347	0,09	0,21	1,48	0,06	2,40	0,19	5,80	0,03	0,00	0,01			

Elements without indication < 0,01 %

2. Mechanische Eigenschaften

Mechanical Properties / Valeurs Mécaniques

Anforderungen Requirements	tensile (Rm) ksi	yield (Rp0,2) ksi	elongation 2" %	elongation A %	Hardness HB	Heat No.
	min. max.	77,0	66,0			
1	86,565	80,620	10,0		167	447/05 - 13 pcs.
2	83,665	77,140	10,0		161	

Cast No. 79923 9 pcs. / Cast No. 01503347 4 pcs.

**Ergebnis der
Prüfungen:** Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results: We confirm that the delivery has been tested and applies to the agreements made on receipt of the order
Resultats: Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande